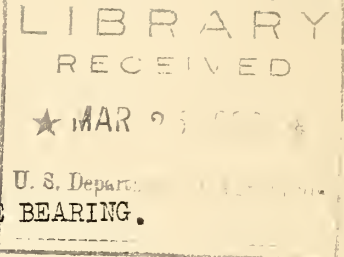


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U. S. DEPARTMENT OF AGRICULTURE  
WEATHER BUREAU  
Instrument Division



INSTRUCTIONS FOR INSTALLING CONTACTING WIND VANE BEARING.

The device consists of the following parts: One wind vane bearing made of half-inch pipe, with keyway bushing to form the top bearing and a pivot support to form the lower bearing; one wind vane axis with a special cam-equipped weather housing rigidly attached; one set of insulated contact springs spaced 90 degrees apart on a collar that fits over the half-inch pipe; one wind vane; one wind vane clamping nut.

To set up the device for use, first erect the half-inch pipe bearing firm and vertical in the desired position. Then fill the bearing with 1-1/2 fluid ounces of automobile engine oil. Next slip the contact spring assembly over the pipe and temporarily clamp it, springs upward and lower edge of brass collar between the two rings that will be found on the pipe 2-13/16 and 3-inches respectively below the top. (These rings mark safe working limits and provide for longer life by occasional change of position). Now insert the axis, being careful to rotate it slowly so as to feel the key in the axis through the keyway in the top bearing. This key arrangement permits the withdrawal of the vane in one and <sup>one</sup> only position. Next put on the vane with due regard to provisions made for insuring its position relative to its axis, generally a pin in the vane extending into a hole in the brass housing of the axis.

Orientation requires that the vane be tied or otherwise temporarily secured in a true north position. The contact spring assembly is then rotated until one of the springs, no matter which one, comes evenly spaced opposite a notch in the brass housing, which indicates the mid-position of the contact cam. This contact spring now becomes the north one, and should have the north wire attached. The other three wires are then clamped to the corresponding binding posts, which are sufficiently identified by their positions. The common or battery wire is to be well grounded to the metal support by means of the screw on the brass collar. As in all electrical installations it pays to take time to connect terminals carefully with well formed loops under the binding nuts. The resulting indications should of course be checked by two observers, one holding the vane in its position, the other observing the indications in the office. There is also a sleet shield which should be temporarily removed, then replaced after all connections have been made.

March 14, 1930, P.H.K.

B. C. Kadel,  
Chief of Instrument Division.

